

Fig. 1

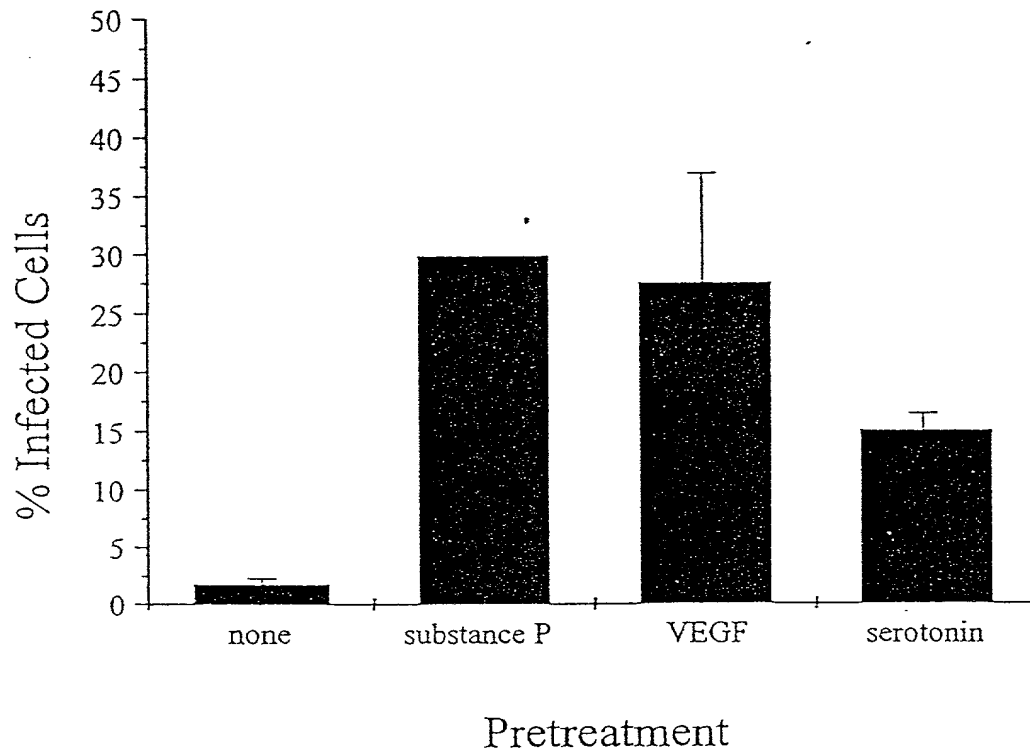


Fig. 1. Effect of pretreatment on adenoviral gene transfer. *Ex vivo* perfused hearts were exposed to substance P (1×10^{-7} M, 30 sec), VEGF (1×10^{-9} M, 2 min) or serotonin (1×10^{-5} M, 15 min) before 2 min Ad β gal infection (1×10^8 pfu/ml). $n = 3$ for each, except $n = 1$ for substance P.

Fig. 2

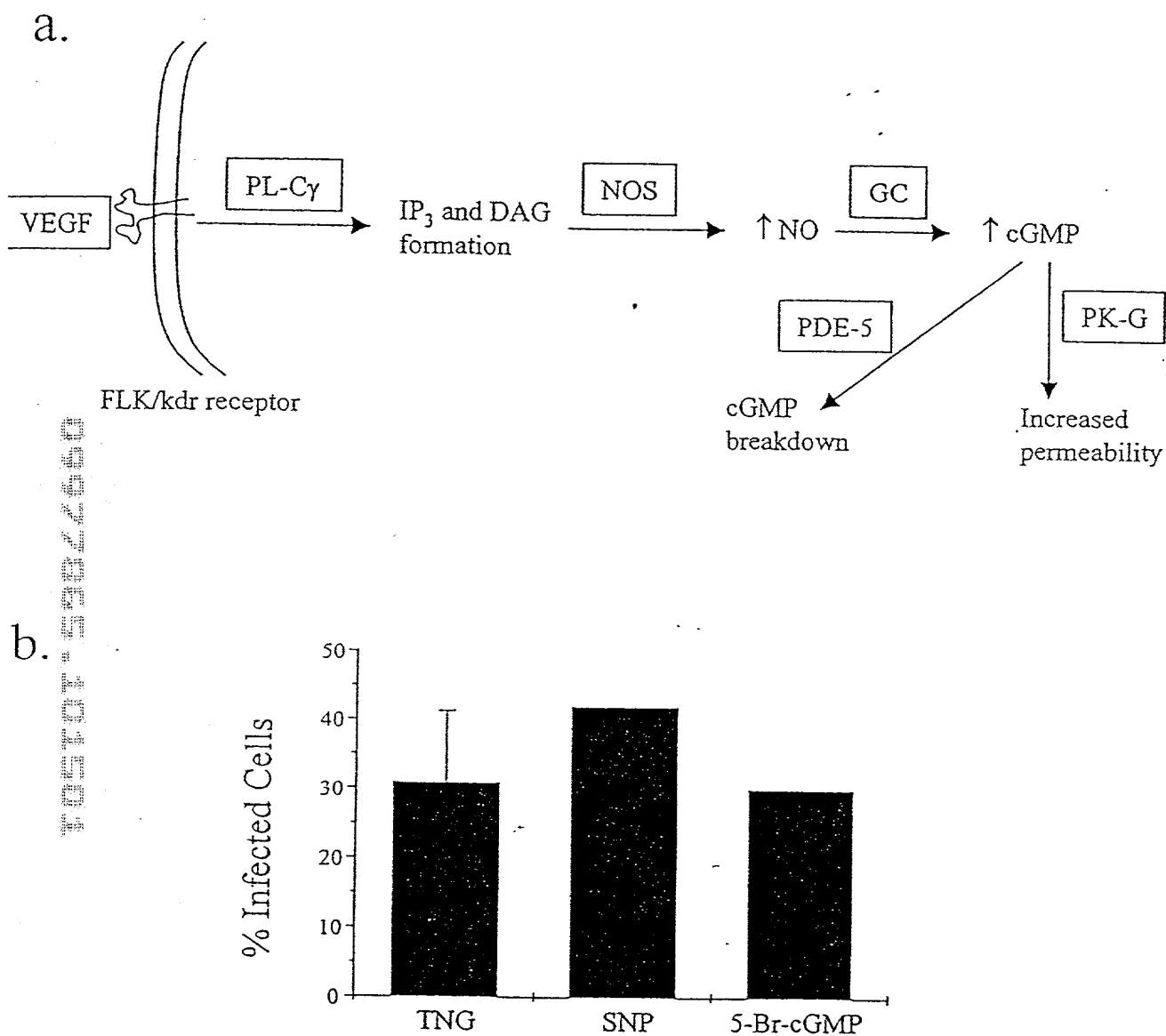


Fig. 2. Investigation of intracellular pathways mediating increase in vascular permeability and gene transfer. **a.** Schematic of intracellular pathway responsible for increases in vascular permeability. **b.** Effect of perfusion with nitroglycerin (TNG) or nitroprusside (SNP) or with 5-Br-cGMP on adenovirus-mediated gene transfer. TNG and SNP increase intracellular NO, and 5-Br-cGMP increases intracellular cGMP. $n = 4$ for TNG and $n = 1$ for SNP and 5-Br-cGMP. Abbreviations: PL-C γ : phospholipase C- γ , NOS: nitric oxide synthase, PDE-5: phosphodiesterase 5, GC: guanylate cyclase, PK-G: protein kinase G

Fig. 3

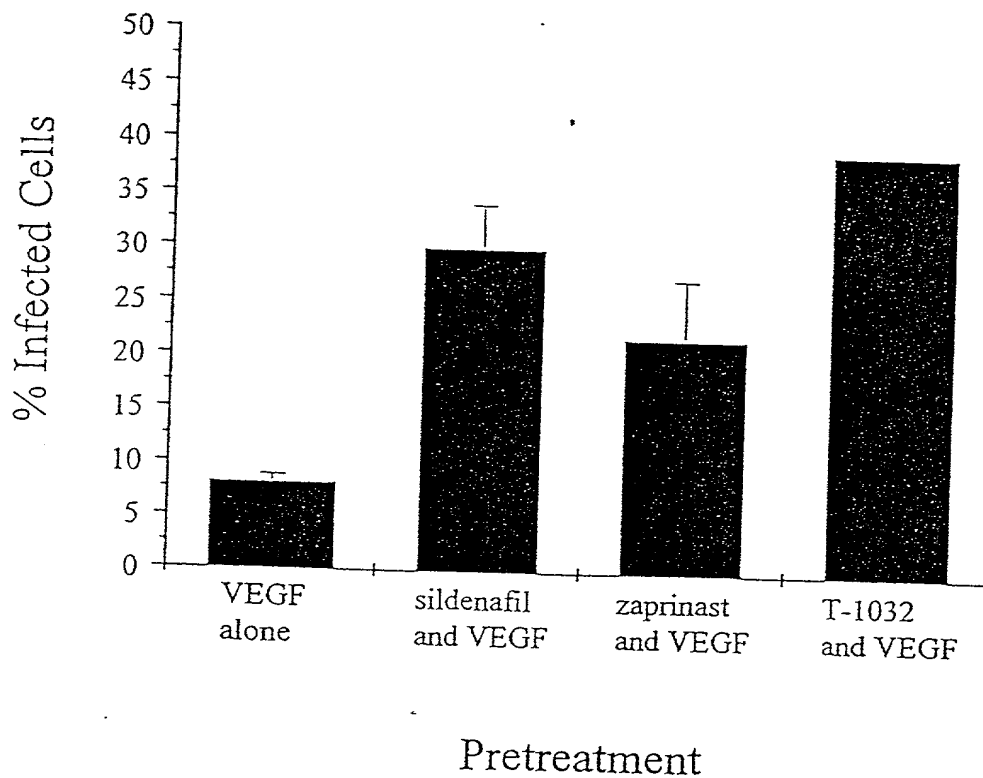


Fig. 3. Effect of phosphodiesterase 5 inhibition on adenoviral gene transfer. *Ex vivo* perfused hearts are exposed to VEGF (0.3×10^{10} M, 2 min) alone or after 15 min exposure to the PDE-5 inhibitors sildenafil (1×10^{-5} M), zaprinast (1×10^{-5} M) or T-1032 (1×10^{-6} M). Hearts were then exposed to Ad β gal (1×10^8 pfu/ml, 2 min), and the percentage of cells receiving the transgene was quantified. $n = 3$ for each except $n = 1$ for T-1032.